

# BULLETIN

— OF THE —

Northern Normal and Industrial School

## The Northern State Teachers College

Aberdeen, South Dakota

Lake Enemy Swim Biological Station



The Dock, Biology Station, Lake Enemy Swim

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Gateway to the Station, Lake Enemy Swim



Northern State Teachers College

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# Lake Enemy Swim Biological Station



## OFFICERS AND INSTRUCTORS FOR THE SUMMER TERM 1928

ARTHUR H. SEYMOUR, D. Ped., Acting President of the College

SIDNEY R. LIPSCOMB, B. S., M. A., Head of the Department  
of Biology and Director of the Biological Station

RUSSELL JONAS, Assistant in Biology



Lobby Jack Rummel's Hotel

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## HISTORY OF LAKE ENEMY SWIM

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Lake Enemy Swim, the beautiful body of water on the wooded banks of which the Biological Station lies, has a history of great interest to the average South Dakotan. The Lake nestles in the midst of post-glacial moraines. Its banks are covered with the dark green of oak, elm, ash, and other beautiful shade trees; while its beaches are great stretches of sand and pebbles, affording wonderful opportunities for bathing and aquatic sports.

The Red Men, who hunted and fought in the midst of this early-day paradise of game and fish, still live upon its borders, although the glory of the ancient day has long since passed. Formerly the hills and prairies in this part of the state were the hunting grounds of the Dakotahs. Here mighty herds of buffalo, deer, and antelope found rich grazing lands; and here, because of these far-reaching hunting grounds, the Sioux constantly clashed with their old enemies, the Chippewas.

The story is told that in 1862, while most of the fighting braves of the Sioux from this lake region were in a great tribal council near where Mobridge now stands, their arch enemy moved westward, out of Minnesota, and made attacks on the scattered camps of the Sioux, occupied by squaws, old men, and children. After repeated disastrous attempts a runner of the Sioux succeeded in making his way by night through the lines of the Chippewas, and after harrying experiences reached the tribal council, bringing his tidings of slaughter and fire. The Sioux immediately assembled their warriors and by forced marches were soon back in their old domain where they suddenly fell upon



the unsuspecting enemy, destroying them in large numbers and driving the survivors down to the lake shore and out onto a heavily wooded island, where they were besieged by the triumphant and vengeful Sioux.

The story continues, that rather than fall into the hands of the Sioux, the hard-pressed Chippewas prepared to take their chances of swimming their horses and families to the mainland by night. Quietly the horses were led into the water, the story goes, and squaws and children were fastened to their backs. Thus the animals swam to the mainland—a few each night—until at length all had reached the mainland. When at last the Sioux, becoming suspicious at the lack of campfire smoke from the island, investigated, they found their arch enemy had fled. From that day to this, this beautiful gem among the lakes has been known as “Enemy Swim.”



Tent Row at Biology Station

## DEPARTMENT OF INSTRUCTION

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201. **General Biology.**—Three lectures and two double laboratory periods per week. Five hours credit. The larger problems of life common to both botany and zoology are drawn upon for illustration and discussion. The animal and plant bodies, reproduction in animals and plants, the origin and heritage of the individual, adaptation of organisms and the origin of species will be given consideration. Biology as applied to education will be emphasized.

202-A. **Invertebrate Zoology.**—Three lectures and two double laboratory periods per week. Five hours credit. The morphology, physiology and taxonomy of the Invertebrates. Laboratory work on the type specimens of the phyla of the invertebrates.

202-B. **Vertebrate Zoology.**—Five hours credit. Principles of vertebrate morphology, geologic aspect of vertebrate phylogeny, and the morphology, taxonomy and physiology of the cyclostomes, pisces, amphibia, reptilia, aves, and mammalia will be studied. Comparative dissection will constitute a part of the laboratory work.

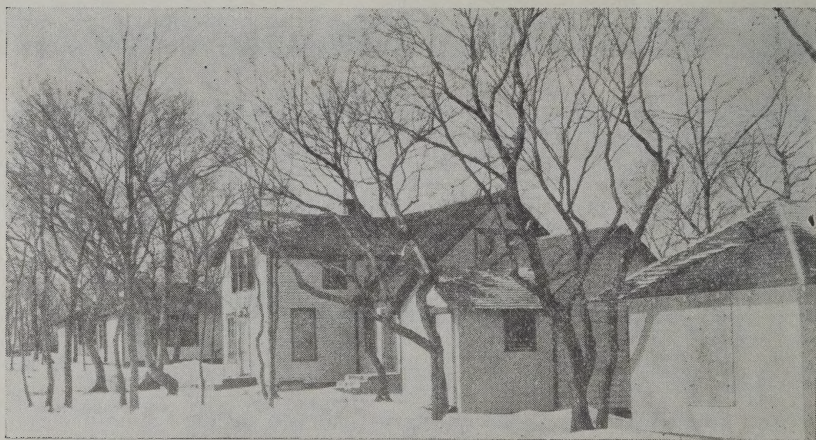
202C. **Economic Zoology.**—Five hours credit. A brief survey of the more important representatives of the phyla of the animal kingdom that are economically beneficial or harmful to man. Much attention is given to the morphology and physiology of arthropoda. A collection of insects common to the lake region is required as a laboratory project.

204-A. **Botany.**—General course. Five hours credit. A general survey of the plant kingdom including a careful study of the representative types from each of the four great groups of plants. Lectures and laboratory work daily.

204-C. **Systematic Botany.**—Five hours credit. Identification and classification of the plants common to the lake region. The preparation of a herbarium is required as a partial fulfillment for credit. The major portion of the course deals with the taxonomy of the herbs.

311. **Plant Ecology.**—Five hours credit. Attention is given to the relation of plants to their environment; the influence of external factors and the response of plants. Lectures and laboratory work.

302. **Genetics and Eugenics.**—Three hours credit. Conditions of animal and plant life. Phylogeny and ontogeny, heredity. Lectures, quizzes and assigned readings.



Cottages, Lake Enemy Swim



# GENERAL INFORMATION

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## AIMS AND PURPOSES

The Lake Enemy Swim Biological Station is designed to offer the best possible opportunity to investigators, teachers and students for study and investigation of problems of biology. Lake Enemy Swim affords splendid opportunity for study of life with reference to aquatic conditions. It affords a meeting ground for biologists. The courses are not duplicates of those given at the College in Aberdeen, but are designed to give first-hand information concerning plants and animals in their natural habitat and surroundings. The procedure of the courses is an indispensable supplement to the more strictly laboratory type of college training in biology.



Gathering Specimens

## DATE OF THE SESSION

The courses of instruction will open Monday, July 16, and will close Friday, August 24. Students should arrive in time to be prepared to attend classes on the opening day.

## FACILITIES

The Station maintains excellent laboratory quarters. The microscopes, glass-ware, aquatic collecting apparatus and other general laboratory equipment are supplied from the College Laboratory in Aberdeen. Boats will be furnished by the Station, when necessary to use them in connection with the work of any course. Students may secure boats through the Station for private use at a very small cost. Five people may secure boat and oars at about 35 cents per week.

## METHODS OF WORK

The work in any course will occupy the entire teaching day. Courses are so arranged that there will be no conflicts. The work will consist of field observations, the study of relation of organisms to their environment, and work in the laboratory. The work in zoology, botany and general biology are well

adapted to fit teachers in secondary schools for presenting these subjects to their students. The opportunity for making teaching collections is exceptionally good.

### CREDENTIALS

Persons who wish to be regularly enrolled in a course for credit must bring credentials from the institution they are attending or have last attended. The credentials should indicate the biological courses for which they have credit.

### COLLEGE CREDIT

Students with college standing may secure ten quarter-hours credits in zoology, botany or general biology. Credits may be transferred under the usual regulations to other institutions.



Noon Intermission

### EXCURSIONS

From the nature of the locality a number of interesting excursions are possible and many good collecting grounds are easily accessible. Special trips will be planned from time to time. Excursions organized by the Station are a part of the regular work. Hildebrand Pass, Enemy Swim Island, Old Fort Sisseton, Fish Hatchery at Pickerel Lake, Buffalo Lake, Big Stone, Lake Traverse, etc., may be visited.

### TALKS AND GENERAL LECTURES

A series of short talks on topics concerned with some phase of Biology, followed by an open forum discussion, is usually given at the evening assembly by the members of the staff of instruction and advanced students. Some of the subjects are: "The Cell Theory"; "Mechanism vs. Vitalism"; "Physical and Chemical Nature of Protoplasm"; "The Mechanics of Mitosis"; "The Axial Gradient Concept"; "Tropisms versus Trial and Error"; "The Problem of Metamerism"; "The Principle of Homology"; "The Germ Plasm Theory"; "Mechanism of Mendelian Inheritance"; "How to Identify the Hay Fever Pollens"; "Biology and



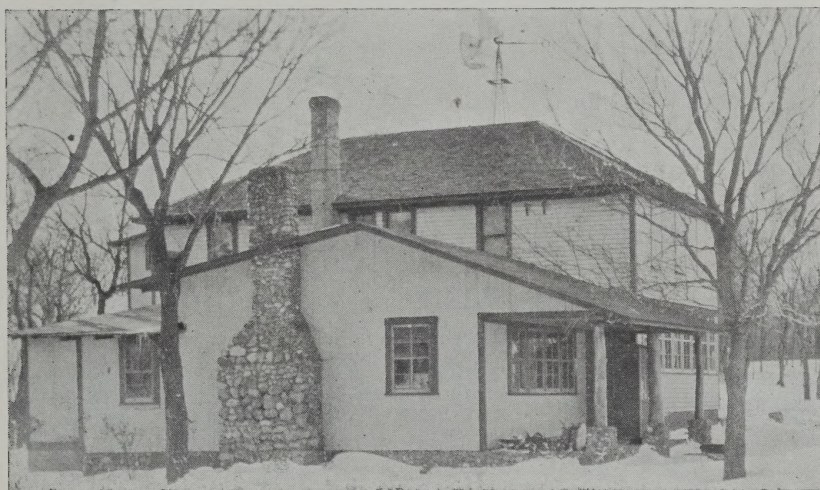
Human Welfare"; "The Ichthyology of the Local Lakes"; "The Quantitative Study of Daphnia and Other Crustacea of Economic Importance", and other topics of interest.

### LIVING AND EXPENSES

Cottages furnished with beds, mattresses, and gasoline cooking stoves are maintained by the Station. These cottages will accommodate a certain number of women students. The rental fee will depend upon the number occupying a cottage. A charge of \$2.00 per week is made when occupied by five students, and \$2.50 per week when occupied by four.

Tents and tenting space are furnished for the men students at a small cost. No charge is made for those who care to bring their own tents. Reservations for cottages must be made with the Director of the Station prior to the opening of the session.

Students who do not wish to board at the hotel will find it convenient and economical to board themselves. Grocery service is maintained by the Station. The expense of those who have boarded themselves has approximated \$2.00 to \$2.50 per week in the past sessions.



Jack Rummel's Hotel

### RECREATION

In addition to field work, collecting excursions, Physical Education Classes and outdoor activities connected with the regular work, abundant means of physical exercise are provided for by rowing, sailing, bathing, tennis, etc. The location is ideal and none but the best health has been the rule with those who have attended the previous sessions.

### PERSONAL EQUIPMENT SUGGESTIONS

For the benefit of those who have never attended the Station, the following list of articles is given as a guide in making preparations: clothing suitable for field work; sweaters and other provisions for cool evenings; bathing suit, towels, bed pillows, sleeping blankets, mess kit, etc.

## COMMUNICATION AND TRANSPORTATION

Waubay is the nearest railway station. Upon arriving there, communicate with the Station by telephone and arrange for transportation service which will be rendered free of charge. Mail, express and freight should be addressed in care of Lake Enemy Swim Biology Station, Waubay, South Dakota.

## FURTHER INFORMATION

For information not given in this bulletin, address Leroy Crawford, Registrar, Northern State Teachers College, or S. R. Lipscomb, Director of Lake Enemy Swim Biological Station, Aberdeen, S. D.



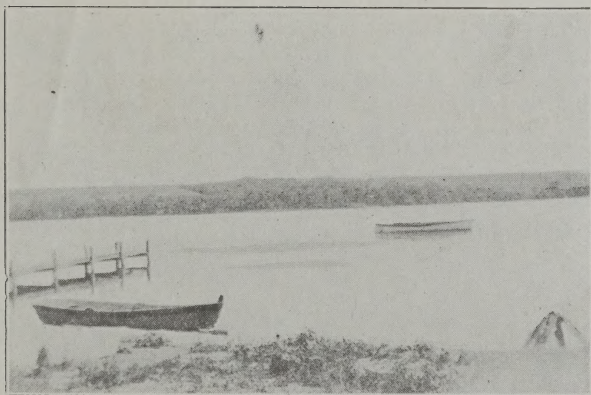
**Main Laboratory of Biology Station**





Setting-Up Exercises

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The Lake



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## NORTHERN STATE TEACHERS COLLEGE

# Summer School Announcements

JUNE 4 to AUGUST 24

Twelve weeks of intensive study for credit in all the regular departments of study.

First Half Term: June 4 to July 13; Second Half: July 16 to August 24.

Exceptional Faculty of 85 Regular Instructors and several Educational Specialists from other Leading Educational Institutions.

### COURSES OF STUDY

1.—Classes for beginning teachers in all subjects to meet the summer school requirements of the state law.

2.—Advanced courses leading to the Bachelor's Degree in Education. Numerous academic and professional subjects for advanced students, teachers, principals, supervisors and superintendents.

### SPECIAL FEATURES

Eighth Grade Demonstration and Practice School in charge of strong corps of critic teachers and supervisors.

Rural Practice School on the Campus, under direction of leading rural experts.

Kindergarten in charge of specialists.

Excellent Dormitory Facilities for young women.

Regular dining room in Lincoln Hall, and Cafeteria in Graham Hall.

### A FEW OUTSTANDING FACTS OF SOUTH DAKOTA'S GREAT TEACHER-TRAINING INSTITUTION

1.—Northern has a new \$225,000 Physical Education Building, including well-equipped Gymnasium and Swimming Pool.

2.—Northern brings to South Dakota this summer Dr. J. W. Wilce, Coach at Ohio State University, for a two-weeks Coaching School—June 4-15; also Dr. Walter L. Daykin, University of Kansas, who will conduct classes in advanced Sociology for both terms.

3.—Northern grants the Degree of B. S. in Education to all four-year Graduates.

4.—Northern is a Member of the American Association of Teachers' Colleges and of the North Central Association. Because of this, credits earned at Northern will be accepted for post-graduate work at the best colleges and universities without conditions.

5.—Northern had 1003 students enrolled for the 1927 Summer Session.

6.—Northern is located at Aberdeen, the second largest City in South Dakota. Aberdeen is accessible through nine radiating railroad lines and two National Auto Highways.

### COMPLETE SUMMER SCHOOL ANNOUNCEMENT

The complete summer school bulletin is now ready. For this and other particulars, address: **The Registrar, Northern State Teachers College, Aberdeen, South Dakota.**